NOTES ON THE MEGACHILIDÆ

By Theodore B. Mitchell,
Department of Zoology and Entomology, North Carolina State College.

Published with the approval of the Director of the North Carolina Agricultural Experiment Station as paper No. 16 of the Journal Series of the North Carolina Station.

Osmia sandhouseae n. n.

Miss Sandhouse has kindly called my attention to the fact that the name *Osmia albohirta* (see Journ. Elisha Mitchell Soc., Vol. 4, p. 164) is preoccupied, having been used by Brullé in 1840 in describing a species of *Megachile* which he wrongly assigned to *Osmia*. This opportunity is taken therefore, to name the species for her.

Megachile manumuskin Vier. = **Megachile addenda** Cress.

Upon examination of the type it was found to be identical with *M. addenda* Cress.

Megachile semimucida Ckll. = **Megachile mucida** Cress.

On page 118, Vol. 52, of the Transactions of the American Entomological Society the males of *M. audax* Mitch., *M. semimucida* Ckll., and *M. mucida* Cress. are given as being the same. At that time I had assumed that the female of *mucida* was the type, since it preceeded the male in the description.[1] The male has been designated as the type, however (Memoirs Am. Ent. Soc. 1, p. 125, 1916) and *semimucida* therefore, becomes a synonym, since the female described under that name is the female of *mucida*.

Megachile mucida ♀ Cress. = **Megachile gemula** Cress.

The female described as *M. mucida*[1] is conspecific with the male of *M. gemula* Cress., which has been designated as the type of that species (Mem. Am. Ent. Soc. 1, p. 119).

Megachile gemula ♀ Cress. = **Megachile vidua** var. Sm.

The female described as *gemula*[1] is a variety of *M. vidua* Sm., differing from the typical form in lacking the abdominal fasciæ. This variety occurs in the southern Appalachians, and the fasciæ are entirely absent in both males and females.

1. See Transactions American Entomological Society, Vol. VII, p. 118.

Megachile shermani Mitch. = **Megachile floridana** Rob.

The type of *M. floridana* has been received from Professor Robertson, and a comparison of the two types shows them to be the same.

Megachile abducta Mitch. = **Megachile sidalceœ** Ckll.

A comparison of the type of *abducta* with specimens of *sidalceœ* determined by Professor Cockerell indicates that these are the same.

Megachile aspera Mitch. = **Megachile relativa** Cress.

At the time *M. aspera* was described it was suspected to be the same as *M. exclamans* Vier. It has since been compared with a homotype of *relativa* and is doubtless the same. *M. exclamans* is possibly the female of *M. infragilis* Cress., but I have not yet seen the type.

Megachile strophostylis Rob. = **Megachile integra** Cress.

A determined specimen of *strophostylis* received from Professor Robertson is the same as the female of *integra*.

Megachile tephrosiana n. sp.

♀. Head broader than long, eyes subparallel; supraclypeal plate impunctate medially, but closely punctured laterally; clypeus with a median longitudinal area which is almost impunctate, the punctures becoming close and rather fine laterally, apical margin entire; mandibles black, very broad, sparsely striately punctate on upper face, 5-dentate, the three apical teeth low but distinct, the two inner ones with hardly any emargination between them and thus forming a straight edge; cheeks broader than eye, the punctures close, fine and shallow below, becoming more sparse and distinct above, shining, with thin white hair on lower half, the pubescence above thin, short and black, with some black hairs on posterior orbits all the way to the inferior angle; vertex slightly rounded, shining, the punctures deep and widely separated, the pubescence short, sparse and black; lateral ocelli slightly nearer eyes than to edge of vertex; antennæ black above, obscurely reddish below, first joint of flagel twice as long as broad, the second with length about equal to breadth, and the others gradually increasing in length to the apical one which is twice as long as broad; pubescence thin on face, long and greyish-

white around antennæ and on inner orbits, extending over the extreme sides of the clypeus which is otherwise nearly bare.

Thorax shining above, white pubescent laterally, behind and beneath; on the mesonotum the pubescence is thin and white anteriorly, black on the larger part of the disc, with no white spots or bands, punctures sparse medially, closer and finer laterally, the surface between them polished; scutellum rather sparsely punctate, polished, with some black pubescence, the pubescence whitish posteriorly; pleura with fine crowded punctures above, larger and more separated below, pubescence quite dense and white; propodeum rather coarsely tessellate, with numerous fine and indistinct punctures, basal triangle granular, pubescence long, thin and whitish; tegulæ piceous, more reddish medially and on anterior margin, with scattered minute punctures; wings fuliginous, darker apically, nervures piceous to black, basal nervure slightly beyond transverse median, the second recurrent nervure nearer the apex than the first is to the base of the second submarginal cell; legs black, white pubescent, reddish-yellow on tarsi beneath, the middle and hind metatarsi narrower than their tibiæ, the front and middle tibiæ with the longitudinal carina on the posterior apex strong and sinuate, the carinate apex deeply notched at the anterior end; spurs yellowish-ferruginous; claws red basally, piceous apically, with strong but short basal teeth.

Abdomen rather ovoid, shining, finely and quite uniformly punctured, somewhat closer basally, the punctures throughout rather widely separated; pubescence black, conspicuous, longer apically, but segment 1 with entirely white pubescence which is dense at the sides; segments 2-5 with conspicuous entire white apical fasciæ, narrow medially on segment 2, broad on the apical segments, the middle segments slightly depressed apically and basally; segment 6 rather broad and short, distinctly concave at sides viewed from above, and very slightly concave in profile, but this largely obscured by the dense erect black pubescence which becomes subappressed and fuscous on the apex, the segment closely and finely punctured; scopa very pale yellow, black on segment 6, and almost entirely so on segment 5, and segments 3

and 4 with a tuft of black hairs on the extreme sides. Length 13 mm.

Type: Female; Tarboro, N. C., May 28, 1925, on flowers of *Tephrosia virginiana*. Paratype; 1 female, Raleigh, May 22, 1925, also on *Tephrosia*.

This seems to be quite close to *M. vidua* Sm., especially to the northern form which is definitely fasciate. It is at once separated, however, by the black scopa on segments 5 and 6, and the otherwise paler scopa, it being more yellowish in *vidua*. This may possibly be the female of *M. ingenua* Cress. A male of *ingenua* was caught in the same general type of country (sandy) at the same time of year and on the same flower, but in widely different localities. This seems hardly sufficient data to fix them definitely as the same species. Further collecting may possibly establish the relationship.